

REMARKS

Claims 1 – 29 are pending in the application. Claims 1, 7, 9, 15 and 29 are amended with support for the amendments found in paragraph 18 of the instant specification. Claims 1- 29 presently stand rejected.

Regarding the Rejections under 35 U.S.C. §103

Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cebula et al (US 2004/0153830, hereinafter “Cebula”) in view of Parker et al (US 5,781,720, hereinafter “Parker”) and partially in view of Melamed et al (US 2004/0107415). Cebula relates to a software test system that compiles elements for a test in a single environment, runs the test and reports results to a user. Parker relates to an automated GUI software testing environment. Melamed relates to a Web-interactive software testing management method and computer system including an integrated test case authoring tool. These rejections are respectfully traversed.

The instant invention relates to automated software test execution using multi-environment test automation (META) drivers. These test automation drivers may be used in multiple diverse environments such as, for example, to test HTTP calls as well as relational database statements in SQL concurrently. These META drivers provide a flexible, extensible framework for test components so that a single driver can span multiple test environments, allowing a multi-threaded test maintained in a common format for each environment to specify and perform tasks defined as specific steps in each of the diverse environments in a multi-threaded execution process (specification, paragraphs [0018] and [0026])

As amended, claim 1 recites, in part, “at least one Test Document comprising a description of the environment for each Test and information regarding the verification of results for said Test” and Test Documents “describing at least one multi-threaded Test *maintained in a common format* that can be concurrently executed by different groups in at least two diverse testing environments” (emphasis added). Similarly, claim 7 recites, in part, “a plurality of said Tests *maintained in a common format*” and “an Executor subsystem that concurrently executes at least one Step and generates at least one Execution Result in at least one of a plurality of *diverse* testing environments.” Claims 9, 15, and 23 recite, in part, “a

Test Store in which a plurality of Tests are stored *and maintained in a common format*” and “said Test being able to be concurrently executed in *at least two diverse testing environments*.” The Office Action seems to assert that these claim elements are met by Figure 3 and the description of the test suite in the Cebula reference, however, they are not.

With respect, the Office Action is mis-characterizing the reference when it states on page 5 that Cebula discloses “grouping at least one Test into a Test Store, said Test Store comprising data pertaining to Tests it contains, said Test being able to be executed in at least two environments” without mentioning, as disclosed in the claims, that the two testing environments are two *diverse* environments. The Cebula reference is silent as to these recited claim features. Indeed, Cebula merely discloses a software test system that compiles elements for a test in a *single* environment at a time, runs the test and reports results to a user. In Figure 3, Cebula discloses only that a test environment may be configured for use with the testing software, and in paragraph [0033] of Cebula the reference discloses only that there is a “setup and run test environment” for testing software. Nowhere does Cebula teach or suggest a Test Document that describes, or a system for executing, “*multi-threaded Tests*,” or that these tests may be “concurrently executed...in at least two *diverse* testing environments.” The Cebula reference thus does not teach at least these elements of claims 1, 7, 9, 15 and 23.

The Office Action admits on page 3, and subsequently, that Cebula does not disclose or teach “a test document describing at least one multi-threaded Test that can be concurrently executed by different groups in at least two diverse testing environments.” The Office Action looks to Parker to remedy this deficiency, however, it does not.

The Parker reference discloses an automated software test system in an environment that utilizes the same script to test a GUI display on multiple computers concurrently by making the scripting language multi-threaded and re-entrant. However, this disclosure does not remedy the shortcomings of the Cebula et al reference. Parker discloses in column 7, lines 55-60, that the test language is multi-threaded, not that the script is capable of multi-threaded testing in two diverse environments concurrently. Although Parker discloses that there are a number of computers that are being used concurrently, and across network connections, each of the computers in the testing groups is loaded with the same system environment. This disclosure teaches that multiple sessions of the same testing environment may be initiated to accommodate a number of clients who are testing the same software

application. Parker does not provide a disclosure for tests being concurrently executed in at least two diverse testing environments.

In addition, there is no disclosure in Parker for tests used in multiple environments being maintained in a common format as required by amended claims 1, 7, 9, 15 and 29. Parker discloses instead in Table 1 that each test document must be provided in a plurality of different formats for use with different GUIs. Thus, Parker does not disclose that tests for use in multiple environments are maintained in a common format. Therefore, the combination of Cebula and Parker does not provide the disclosure necessary to render claims 1, 7, 9, 15 and 29 obvious. These claims are allowable for at least this reason. Reconsideration of the Section 103 rejection of these claims is respectfully requested.

Regarding claims 6 and 20, these claim recite at least “a Test Transform for transforming an existing Test in a first Test Document into a new Test *type* in a second Test Document.” The Office Action seems to assert that Cebula discloses this claim feature in paragraph [0076] of the reference, however, it does not. In paragraph [0076] Cebula discloses test editing that modifies an existing test regarding moves, adds, and deletes from the existing test document. However, this is not the same as changing the type of test that is stored in the test document. Therefore, Cebula does not provide the disclosure necessary to render claims 6 and 20 obvious. These claims are allowable for at least this reason. Reconsideration of the Section 103 rejection of these claims is respectfully requested.

Regarding claims 12 and 26, these claims recite “said Test Store is implemented as an abstraction that allows a plurality of Test Documents to be stored in at least two different formats.” The office action seems to assert that Cebula teaches this claim feature in paragraph [0037], however, it does not. In paragraph [0037], Cebula discloses a translation module that can translate one definite format into a second definite format. There is no disclosure or teaching of the implementation of “an abstraction that allows a plurality of Test Documents to be stored in at least two different formats.” Cebula provides a disclosure of a limited method for translation directly from one format to a second format. Claims 12 and 26 recite a method step that places a Test Store into an abstract state in which derivation from the abstract state to any other data state for which there is a format is readily accomplished.

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This is very different from the disclosure in Cebula because even if provided the format, the method disclosed in Cebula cannot formulate a test document in a format for which there is no translation module, unlike the claimed method. Therefore, Cebula does not provide the teaching necessary to render these claims obvious. These claims are allowable for at least this reason. Reconsideration of the Section 103 rejection of these claims is respectfully requested.

Claims 2-6, 8, 10-14 and 16-28 all depend, either directly or indirectly, from one of claims 1, 7, 9 and 15. As such, the applicants submit that these claims are patentable over the combination of Cebula et al, Parker et al and in further view of Melamand et al for at least the same reasons as stated above with respect to claims 1, 7, 9 and 15. Accordingly, reconsideration and allowance are respectfully requested.

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CONCLUSION

For the forgoing reasons, the applicants respectfully submit that the instant application is in condition for allowance. Reconsideration and early allowance is hereby respectfully requested.

Date: November 17, 2008

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